California EMS System
Core Quality Measures Report
Calendar Year 2019

Emergency Medical Services Authority

California Health and Human Services Agency

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Dave Duncan MD, Director

DAVE DUNCAN, MD
DIRECTOR

LOUIS BRUHNKE
CHIEF DEPUTY DIRECTOR

TOM MCGINNIS
CHIEF, EMS SYSTEMS DIVISION

TABLE OF CONTENTS

BACKGROUND

The California EMS System Core Quality Measures Project was developed by a task force consisting of data and quality leaders from local EMS agencies (LEMSAs), LEMSA medical directors, hospitals, prehospital EMS providers, and the California EMS Authority (EMSA). The measures are based on evidence-based processes and treatments for a condition or illness. Each year, the measures are updated based on data system changes and operational considerations. Core quality measures are intended to help EMS systems improve the quality of patient care by focusing measurement specifications on key processes and results of care. *California EMS Systems Core Quality Measures Instruction Manual (EMSA #166 - Appendix E)* defines the specific data elements and instructions for reporting each measure. The EMS system quality improvement regulations have been established (CCR, Title 22, Division 9, Chapter 12) that define the requirements for local EMS agencies, EMS service providers, and base hospitals in their role as part of the EMS system. These requirements include, but are not limited to, the implementation of an EMS Quality Improvement Program (EMS QIP) and the use of defined indicators to assess the local EMS system as found in EMSA #166 - Appendix E. The measures are refined each year based on EMSA review and LEMSA input.

LEMSA participation in the California Emergency Medical Services Information System (CEMSIS) is required, consistent with HSC 1797.102, to provide the EMS Authority with information necessary to assess the effectiveness of emergency medical services in each EMS area or the system's service area. The LEMSAs run their core quality measure reports from their local database and submit aggregate results to EMSA. Since each of the 33 LEMSAs maintains their own EMS database and each is dependent on their EMS provider agencies to submit data, there is variability in their capability to report core quality measures and some intrinsic variation in the results exists.

METHODOLOGY

For the 2019 calendar year, EMSA requested that all LEMSAs use the specifications in the *California EMS Systems Core Quality Measures Instruction Manual (EMSA #166 - Appendix E)* when running their data reports and not use any custom elements or fields specific to their local jurisdiction or EMS providers. The specifications were drafted by a consensus group consisting of EMSA and LEMSA representatives. The revised specifications from the local jurisdictions and recommendations from previous reporting years were finalized in July 2020. These specifications were incorporated into the most current version of the Core Quality Measures Instruction Manual. Adherence to the consensus specifications is critical to maintaining the integrity of this statewide assessment. LEMSA questions and comments regarding the specifications are an essential part of the Core Measure improvement process. The Universal fidelity to the consensus specifications is key to comparing the reported results throughout the State.

LIMITATIONS AND CHALLENGES

Quality measure analysis depends on the development of compatible data systems and standardized data collection regimes at various levels of the EMS system. Commonly understood data measures are essential to quality improvement efforts and to data driven medical decision making. The demonstrated commitment of all of California's EMS decision makers to meaningful quality measures promises to provide our State's citizens with the reliable medical quality assurance that they have come to expect from more mature healthcare sectors. Other challenges to reporting the measures to EMSA are enumerated below.

LIMITATIONS

Non-Responses to Core Measures Request – All 33 LEMSAs were contacted to provide core quality measure information to EMSA by a set date. For the 2019 reporting year, 26 of the 33 LEMSAs provided a formal response to EMSA's request for information. The remaining LEMSAs failed to provide any response to the request. Of the 33 LEMSAs, 26 reported at least one measure for 2019 data. Most LEMSAs (24 of 26) reported data for 10 of the 10 measures.

Partial System Representation – Only a portion of the actual EMS business conducted in California is represented in this report; the values reported by the LEMSAs do not represent 100% of the providers in the State. Multiple LEMSAs reported that not all their providers were represented in their reporting for various reasons or their providers were not using the data elements or values specified in the 2019 Core Measures.

In future years, the system improvements listed below will facilitate data collection and more accurate reporting. These advancements should improve data validity and decrease variability related to documentation and measure specifications.

1. CEMSIS accumulating sufficient records to generate reports on core quality measures from patient-level data.
2. Data validation between CEMSIS data and LEMSA data.

TABLES AND CHARTS GENERATED FROM CORE QUALITY MEASURES REPORTS

LEMSAs Reporting Data for Core Quality Measures 2009-2019
The table shows which LEMSAs submitted data for years 2009-2019.
For the 2019 reporting year, 26 LEMSAs reported information for at least one measure. If a LEMSA submitted a value for any of the measures found in the *California EMS System Core Quality Measures Instruction Manual (EMSA 166 - Appendix E)*, the cell associated with that data year is populated with a check mark "✓" and shaded light blue. For LEMSAs that did not submit any core measure information to EMSA, the cell for that corresponding year appears blank.

LEMSA Participation in the 2019 Core Quality Measures Report
The map of California shows which LEMSAs (single county EMS agencies and regional agencies) submitted data for 2019. Participation in the California Core Quality Measures Report increased by 18% from the 2018 to 2019 reporting calendar year. 79% (26 of 33) of LEMSAs in California participated in the 2019 Core Quality Measures Report by providing data for at least one measure. 92% (24 of 26) of participating LEMSAs reported data for 10 of the 10 measures.

2019 Core Quality Measures Aggregate Values
The aggregate values table includes the total number of LEMSAs that reported a value for each measure (response count), the percentage of LEMSAs that submitted a value for each measure (submission rate), the aggregate denominator total (number of patient records) of all responses, and the mean (average) and median reported value for each measure.

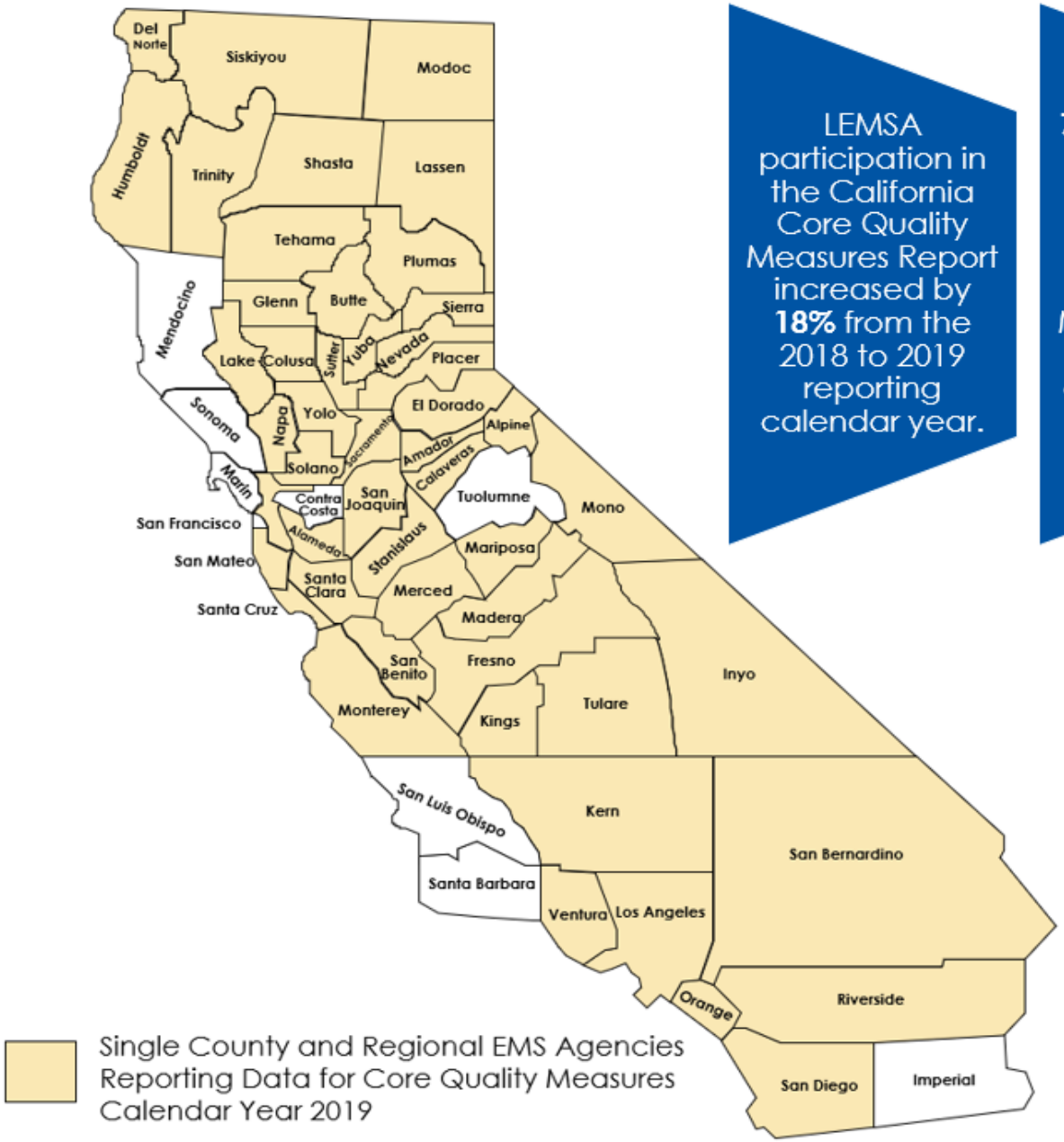
2019 Core Quality Measures Results (Charts and Tables)
This report includes the LEMSA responses to the clinical measures as they were reported to EMSA. Each measure includes a chart based on the reported values provided by the LEMSAs and the median value for all submissions. Additionally, this report provides a table of the LEMSA response count for each measure, submission rate for the measure, mean (average) reported value, the denominator (population) for the measure, and the median value for all responses for each measure. The table is populated directly from the values provided to EMSA by the LEMSAs. The blue text box includes a brief evaluation on the measure and responses.

Appendix: Responses from LEMSAs for the 2019 Core Quality Measures Report
The appendix contains tables with the information provided by each LEMSA for the 2019 Core Quality Measures Report. All notes and feedback provided from the LEMSAs will be considered by EMSA for the 2020 reporting calendar year.

LEMSAs REPORTING DATA FOR CORE QUALITY MEASURES 2009-2019

LEMSA	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Alameda County EMS		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Central California EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Coastal Valleys EMS				✓	✓	✓	✓	✓	✓		
Contra Costa County EMS		✓	✓	✓	✓	✓	✓	✓	✓		
El Dorado County EMS				✓	✓	✓					✓
Imperial County EMS											
Inland Counties EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Kern County EMS		✓	✓		✓	✓	✓	✓	✓	✓	✓
Los Angeles County EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Marin County EMS		✓	✓		✓	✓	✓	✓	✓		
Merced County EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Monterey County EMS		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mountain-Valley EMS		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Napa County EMS					✓	✓	✓	✓	✓	✓	✓
North Coast EMS		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Northern California EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Orange County EMS					✓	✓	✓	✓	✓		✓
Riverside County EMS		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sacramento County EMS		✓	✓	✓	✓	✓			✓		✓
San Benito County EMS					✓	✓	✓	✓	✓		✓
San Diego County EMS		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
San Francisco EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
San Joaquin County EMS				✓	✓	✓	✓	✓	✓	✓	✓
San Luis Obispo County EMS		✓	✓		✓	✓	✓	✓	✓		
San Mateo County EMS		✓	✓	✓	✓	✓	✓	✓	✓		✓
Santa Barbara County EMS	✓	✓	✓		✓	✓	✓	✓	✓		
Santa Clara County EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Santa Cruz County EMS	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Sierra-Sacramento Valley EMS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Solano County EMS				✓	✓	✓					✓
Tuolumne County EMS		✓	✓	✓	✓	✓	✓		✓		
Ventura County EMS		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Yolo County EMS					✓	✓	✓	✓	✓	✓	✓
TOTAL PARTICIPANTS:	**10**	**24**	**24**	**23**	**32**	**32**	**29**	**28**	**30**	**20**	**26**

LEMSA PARTICIPATION IN THE 2019 CORE QUALITY MEASURES REPORT



LEMSA participation in the California Core Quality Measures Report increased by **18%** from the 2018 to 2019 reporting calendar year.

79% (26 of 33) of LEMSAs in California participated in the 2019 Core Quality Measures Report by providing data for at least one measure.

92% (24 of 26) of participating LEMSAs reported data for 10 of the 10 measures.

Considerations for the information presented in the following tables and charts:

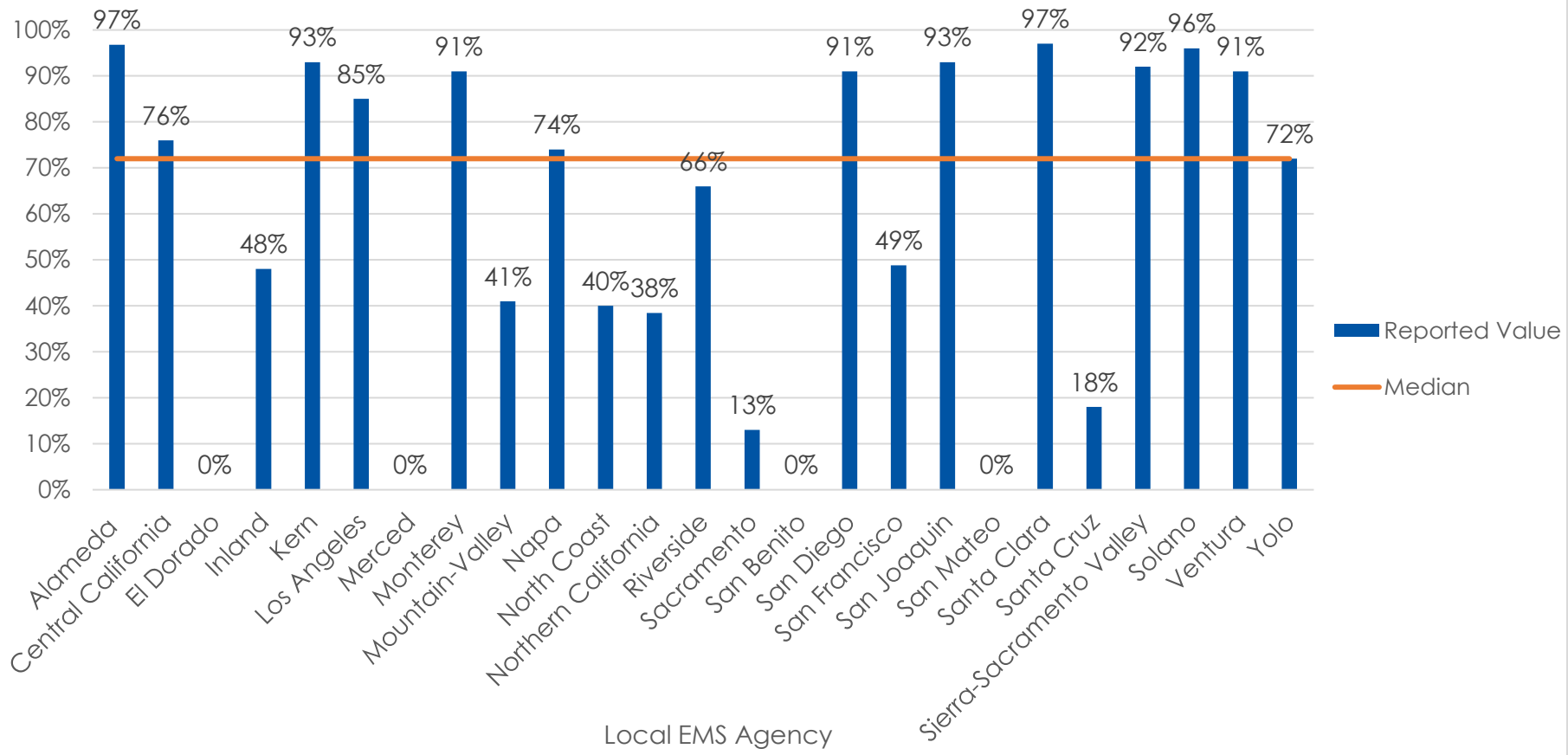
- Non-reporting LEMSAs did not indicate why they were unable to report information on the measure(s).
- Adjustments to the measures will be made for the 2020 reporting year to provide clarification on the intent of the measures and to report EMS performance in the field more accurately.
- Multiple factors impact the validity and analysis of these retrospective data, including but not limited to incomplete documentation, documentation not reflective of services provided prior to ambulance arrival, inconsistent data dictionary definitions between local jurisdictions, geographic resource disparities, and inability to collect hospital outcome data.
- These retrospective data have not been validated. These limitations caution against comparison between jurisdictions and limit the reliability of the aggregate values.

2019 CORE QUALITY MEASURES AGGREGATE VALUES

Measure ID	TRA-2	ACS-1	ACS-4	HYP-1	STR-1	STR-2	STR-4	PED-3	RST-4	RST-5
LEMSA Response Count*	25	25	24	26	25	26	24	26	25	25
Submission Rate (n=33)	76%	76%	73%	79%	76%	79%	73%	79%	76%	76%
Denominator Total	75,808	80,708	12,224	35,454	42,751	40,091	26,352	9,625	3,248,790	1,962,678
Mean (Average)	58%	61%	52%	72%	81%	79%	63%	84%	77%	11%
Median	72%	63%	49%	73%	82%	90%	70%	95%	84%	8%

*LEMSA Response Count is defined as the number of LEMSAs that submitted a reported value for a measure.

TRA-2 CHART: TRANSPORT OF TRAUMA PATIENTS TO A TRAUMA CENTER



TRA-2 TABLE: TRANSPORT OF TRAUMA PATIENTS TO A TRAUMA CENTER

Percentage of trauma patients meeting CDC Step 1 or 2 or 3 criteria that were transported to a trauma center originating from a 911 response.

LEMSA	Denominator (Population)	Reported Value
Alameda County	1217	97%
Central California	1703	76%
El Dorado County	20470	0%
Inland Counties	5193	48%
Kern County	1192	93%
Los Angeles County	6930	85%
Merced County	2469	0%
Monterey County	585	91%
Mountain-Valley	285	41%
Napa County	234	74%
North Coast	241	40%
Northern California	156	38%
Riverside County	2346	66%
Sacramento County	2931	13%
San Benito County		0%
San Diego County	1003	91%
San Francisco	3239	49%
San Joaquin County	135	93%
San Mateo County	18304	0%
Santa Clara County	2255	97%
Santa Cruz County	559	18%
Sierra-Sacramento Valley	1973	92%
Solano County	727	96%
Ventura County	1109	91%
Yolo County	552	72%

Not Reporting: Coastal Valleys, Contra Costa County, Imperial County, Marin County, Orange County, San Luis Obispo County, Santa Barbara County, Tuolumne County

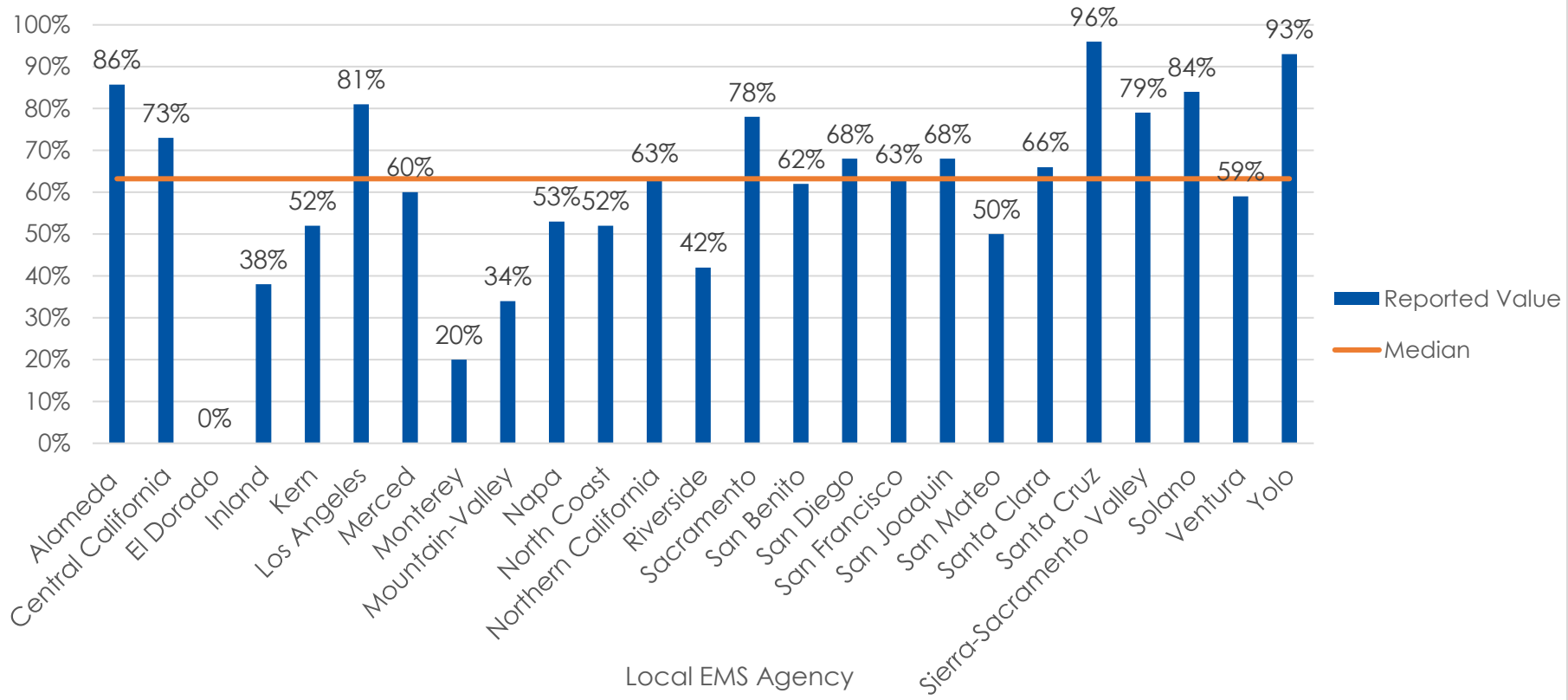
Response Count	25
Submission Rate (n=33)	76%
Denominator Total	75808
Mean	58%
Median	72%

Of the 25 responding LEMSAs reporting TRA-2 data for 2019, the mean (average) of the data set was 58% while the median value was 72%.

Several LEMSAs noted issues with the collection or mapping of data element/value eDisposition.23 (Hospital Capability). Application of this data element will be further evaluated for the 2020 reporting calendar year.

Select this link to view the measure specifications for TRA-2

ACS-1 CHART: ASPIRIN ADMINISTRATION FOR STEMI OR SUSPECTED CARDIAC CHEST PAIN



ACS-1 TABLE: ASPIRIN ADMINISTRATION FOR STEMI OR SUSPECTED CARDIAC CHEST PAIN

Percentage of patients aged 35 and above with STEMI or suspected cardiac chest pain that received aspirin originating from a 911 response.

LEMSA	Denominator (Population)	Reported Value
Alameda County	2146	86%
Central California	5961	73%
El Dorado County	600	0%
Inland Counties	12245	38%
Kern County	1979	52%
Los Angeles County	6700	81%
Merced County	1021	60%
Monterey County	2257	20%
Mountain-Valley	4644	34%
Napa County	477	53%
North Coast	866	52%
Northern California	219	63%
Riverside County	12247	42%
Sacramento County	6404	78%
San Benito County		62%
San Diego County	1651	68%
San Francisco	2450	63%
San Joaquin County	2742	68%
San Mateo County	2075	50%
Santa Clara County	3044	66%
Santa Cruz County	1182	96%
Sierra-Sacramento Valley	5590	79%
Solano County	1304	84%
Ventura County	2396	59%
Yolo County	508	93%

Not Reporting: Coastal Valleys, Contra Costa County, Imperial County, Marin County, Orange County, San Luis Obispo County, Santa Barbara County, Tuolumne County

Response Count	25
Submission Rate (n=33)	76%
Denominator Total	80708
Mean	61%
Median	63%

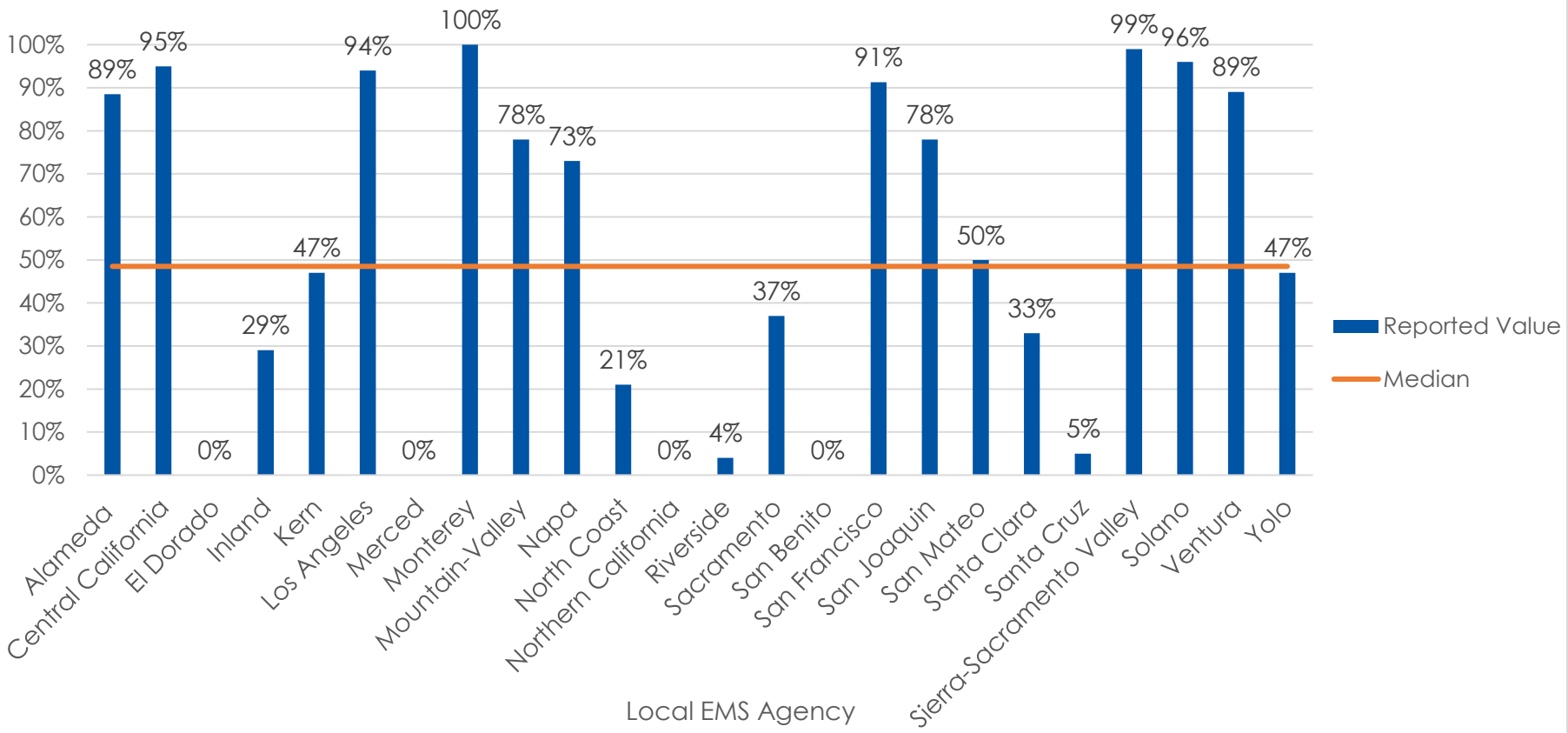
Of the 25 responding LEMSAs reporting ACS-1 data for 2019, the mean (average) of the data set was 61% while the median value was 63%.

Some LEMSAs noted that patients were being excluded from the numerator population and not the denominator population. This may have resulted in variation in how the measures were run and reported. Exclusion criteria for this will be made clear and applied appropriately to both numerator and denominator in the 2020 data set.

All 33 LEMSAs have aspirin administration in their protocol for management of suspected ACS patients.

Select this link to view the measure specifications for ACS-1

ACS-4 CHART: ADVANCED HOSPITAL NOTIFICATION FOR STEMI PATIENTS



ACS-4 TABLE: ADVANCED HOSPITAL NOTIFICATION FOR STEMI PATIENTS

Percentage of STEMI patients transported by primary care provider originating from a 911 response that included an advance hospital notification or pre-arrival alert to a STEMI receiving center.

LEMSA	Denominator (Population)	Reported Value
Alameda County	278	89%
Central California	439	95%
El Dorado County	24	0%
Inland Counties	784	29%
Kern County	235	47%
Los Angeles County	5805	94%
Merced County	32	0%
Monterey County	173	100%
Mountain-Valley	173	78%
Napa County	55	73%
North Coast	34	21%
Northern California	18	0%
Riverside County	702	4%
Sacramento County	710	37%
San Benito County		0%
San Francisco	322	91%
San Joaquin County	297	78%
San Mateo County	351	50%
Santa Clara County	475	33%
Santa Cruz County	249	5%
Sierra-Sacramento Valley	499	99%
Solano County	168	96%
Ventura County	318	89%
Yolo County	83	47%

Not Reporting: Coastal Valleys, Contra Costa County, Imperial County, Marin County, Orange County, San Diego County, San Luis Obispo County, Santa Barbara County, Tuolumne County

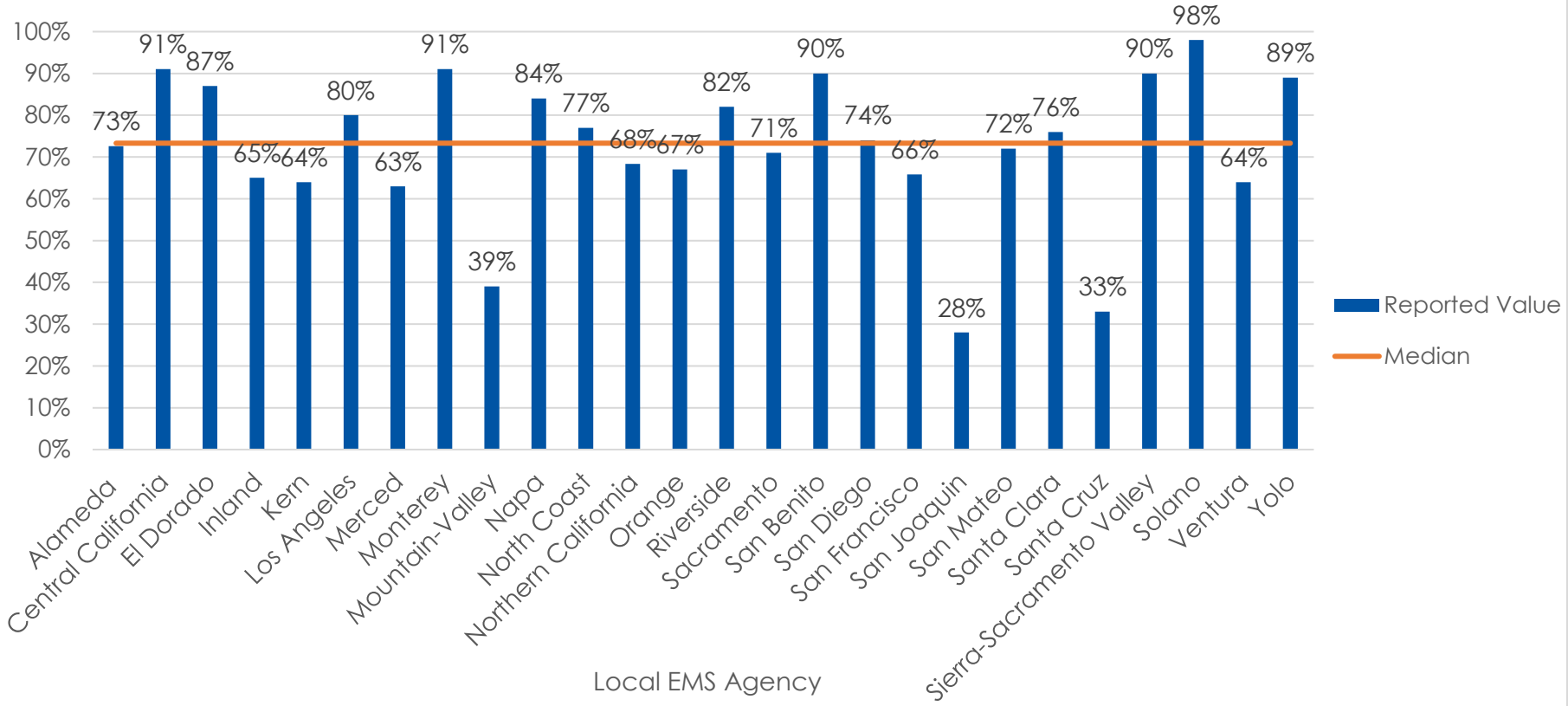
Response Count	24
Submission Rate (n=33)	73%
Denominator Total	122224
Mean	52%
Median	49%

Of the 24 responding LEMSAs reporting ACS-4 data for 2019, the mean (average) of the data set was 52% while the median value was 49%.

Several LEMSAs noted issues with the collection or mapping of data element/value eDisposition.23 (Hospital Capability) and eDisposition.24 (Destination Team Pre-Arrival Alert or Activation). The application of these data elements will be further evaluated for the 2020 reporting calendar year.

Select this link to view the measure specifications for ACS-4

HYP-1 CHART: TREATMENT ADMINISTERED FOR HYPOGLYCEMIA



HYP-1 TABLE: TREATMENT ADMINISTERED FOR HYPOGLYCEMIA

Percentage of patients that received treatment to correct their hypoglycemia originating from a 911 response.

LEMSA	Denominator (Population)	Reported Value
Alameda County	1430	73%
Central California	2113	91%
El Dorado County	221	87%
Inland Counties	3814	65%
Kern County	2530	64%
Los Angeles County	7399	80%
Merced County	16	63%
Monterey County	386	91%
Mountain-Valley	816	39%
Napa County	243	84%
North Coast	171	77%
Northern California	60	68%
Orange County	3217	67%
Riverside County	3207	82%
Sacramento County	2214	71%
San Benito County		90%
San Diego County	232	74%
San Francisco	1393	66%
San Joaquin County	896	28%
San Mateo County	1086	72%
Santa Clara County	701	76%
Santa Cruz County	155	33%
Sierra-Sacramento Valley	1562	90%
Solano County	319	98%
Ventura County	1102	64%
Yolo County	171	89%

Not Reporting: Coastal Valleys, Contra Costa County, Imperial County, Marin County, San Luis Obispo County, Santa Barbara County, Tuolumne County

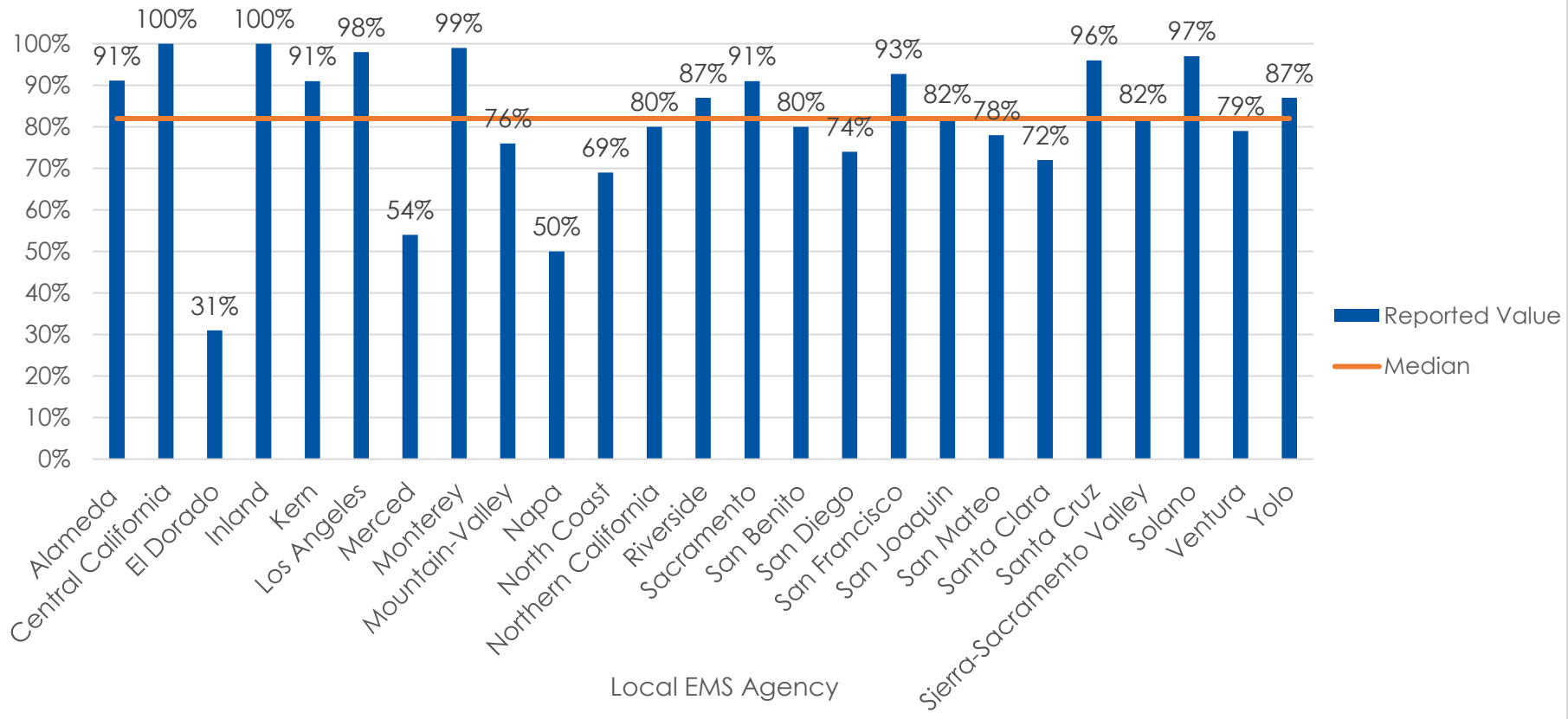
Response Count	26
Submission Rate (n=33)	79%
Denominator Total	35454
Mean	72%
Median	73%

Of the 26 responding LEMSAs reporting HYP-1 data for 2019, the mean (average) of the data set was 72% while the median value was 73%.

One LEMSA noted data entry errors by field providers as a contributing factor to their values. No other notes were provided by the LEMSAs.

Select this link to view the measure specifications for HYP-1

STR-1 CHART: PREHOSPITAL SCREENING FOR SUSPECTED STROKE PATIENTS



STR-1 TABLE: PREHOSPITAL SCREENING FOR SUSPECTED STROKE PATIENTS

Percentage of suspected stroke patients that received a prehospital stroke screening originating from a 911 response.

LEMSA	Denominator (Population)	Reported Value
Alameda County	2379	91%
Central California	2045	100%
El Dorado County	376	31%
Inland Counties	4295	100%
Kern County	1475	91%
Los Angeles County	8436	98%
Merced County	337	54%
Monterey County	169	99%
Mountain-Valley	925	76%
Napa County	476	50%
North Coast	230	69%
Northern California	153	80%
Riverside County	4885	87%
Sacramento County	3042	91%
San Benito County		80%
San Diego County	712	74%
San Francisco	1295	93%
San Joaquin County	1481	82%
San Mateo County	1926	78%
Santa Clara County	2314	72%
Santa Cruz County	774	96%
Sierra-Sacramento Valley	2896	82%
Solano County	684	97%
Ventura County	1000	79%
Yolo County	446	87%

Not Reporting: Coastal Valleys, Contra Costa County, Imperial County, Marin County, Orange County, San Luis Obispo County, Santa Barbara County, Tuolumne County

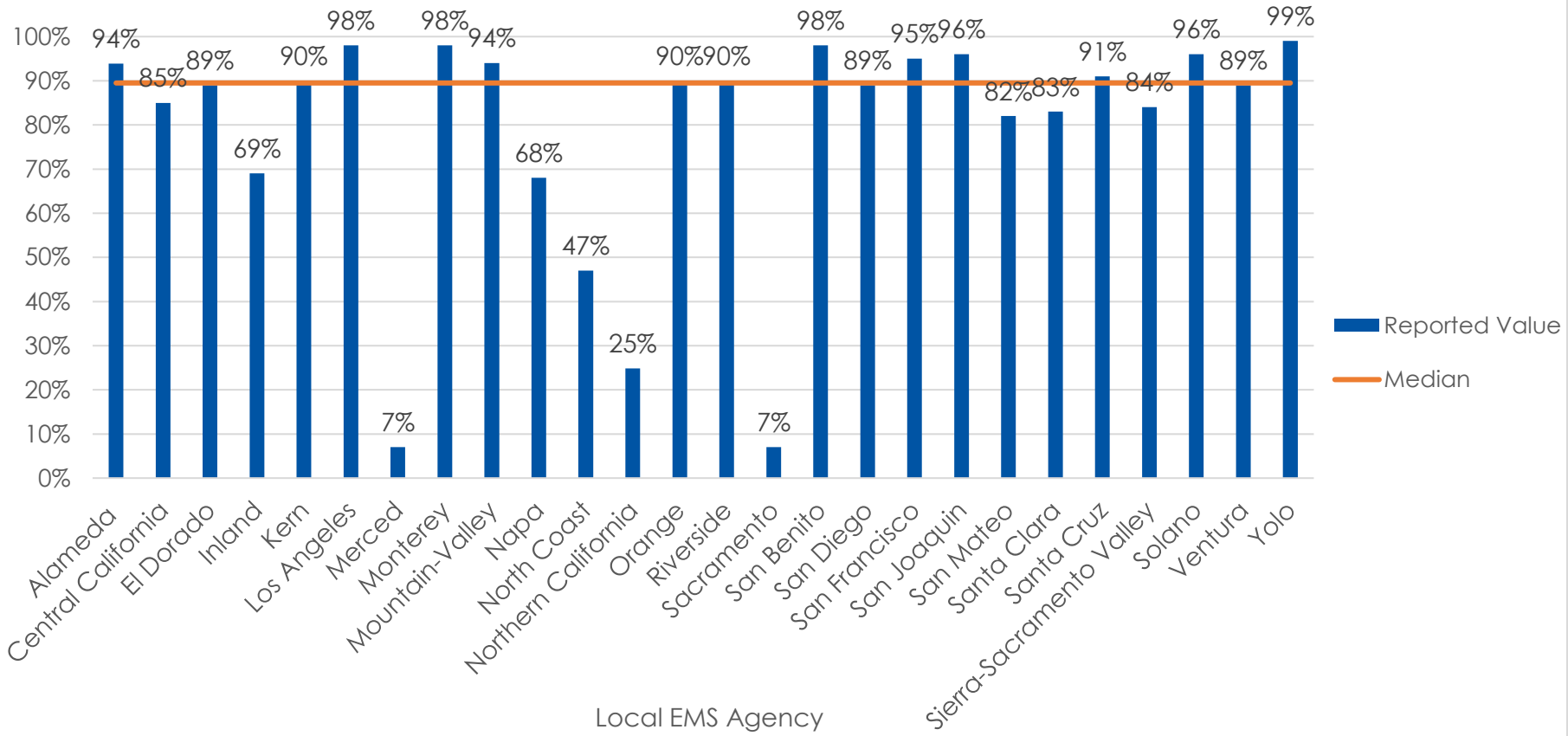
Response Count	25
Submission Rate (n=33)	76%
Denominator Total	42751
Mean	81%
Median	82%

Of the 25 responding LEMSAs reporting STR-1 data for 2019, the mean (average) of the data set was 81% while the median value was 82%.

Some LEMSAs noted issues with their reporting structure that hindered their ability to accurately report data for this measure. Two of the LEMSAs experienced issues building their report with the use of eVitals.29 (Stroke Scale Score), whereas two other LEMSAs required the use of manually kept data or local supplemental questions in order to provide values for this measure. This will be further evaluated for the 2020 reporting calendar year.

Select this link to view the measure specifications for STR-1

STR-2 CHART: GLUCOSE TESTING FOR SUSPECTED STROKE PATIENTS



STR-2 TABLE: GLUCOSE TESTING FOR SUSPECTED STROKE PATIENTS

Percentage of suspected stroke patients that had an assessment of blood glucose level originating from a 911 response.

LEMSA	Denominator (Population)	Reported Value
Alameda County	2376	94%
Central California	2045	85%
El Dorado County	376	89%
Inland Counties	4295	69%
Kern County	1475	90%
Los Angeles County	2612	98%
Merced County	606	7%
Monterey County	169	98%
Mountain-Valley	925	94%
Napa County	476	68%
North Coast	334	47%
Northern California	153	25%
Orange County	2804	90%
Riverside County	4885	90%
Sacramento County	3042	7%
San Benito County		98%
San Diego County	712	89%
San Francisco	1295	95%
San Joaquin County	1481	96%
San Mateo County	1926	82%
Santa Clara County	2314	83%
Santa Cruz County	774	91%
Sierra-Sacramento Valley	2896	84%
Solano County	684	96%
Ventura County	1000	89%
Yolo County	436	99%

Not Reporting: Coastal Valleys, Contra Costa County, Imperial County, Marin County, San Luis Obispo County, Santa Barbara County, Tuolumne County

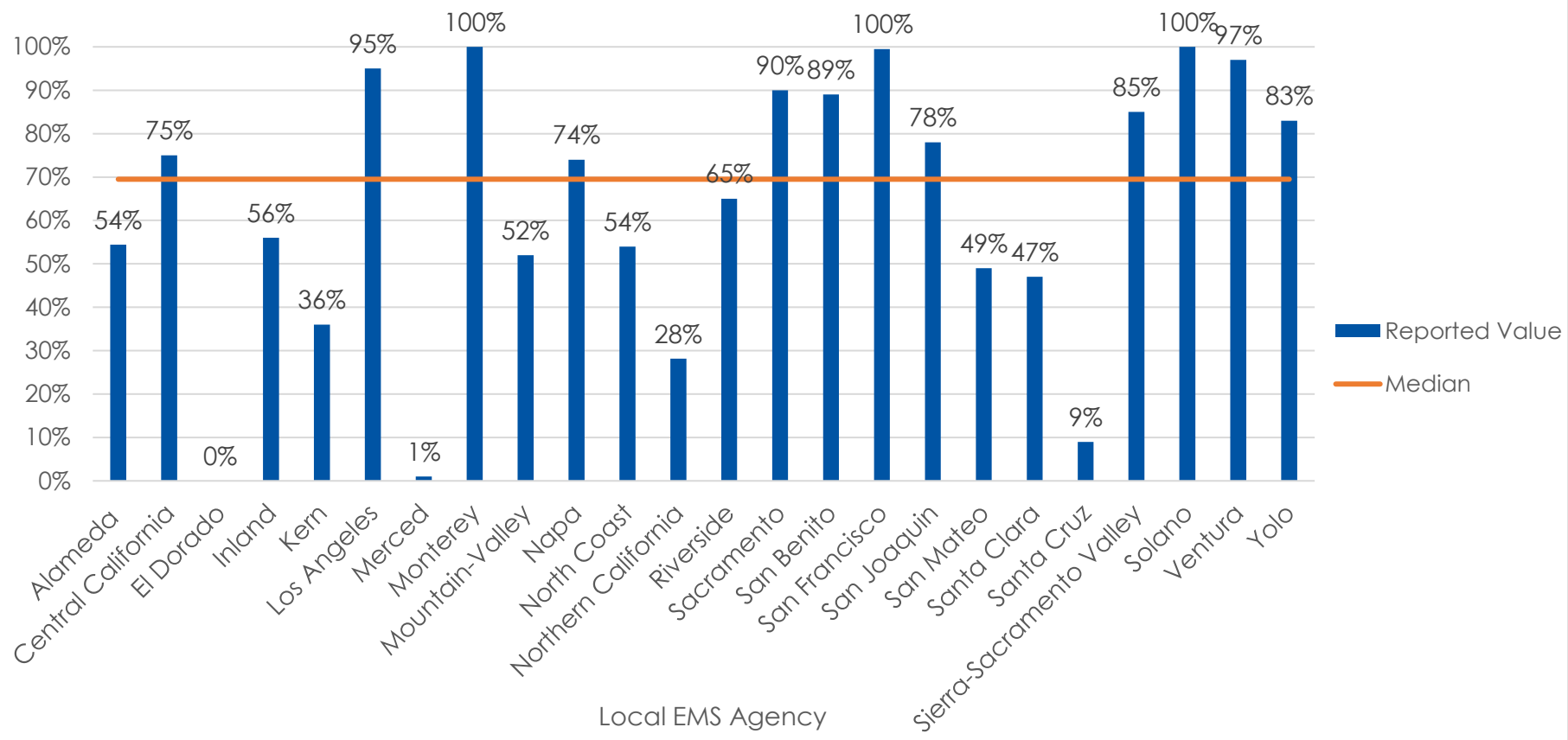
Response Count	26
Submission Rate (n=33)	79%
Denominator Total	40091
Mean	79%
Median	90%

Of the 26 responding LEMSAs reporting STR-2 data for 2019, the mean (average) of the data set was 79% while the median value was 90%.

Some LEMSAs noted concerns regarding the exclusion criteria of this measure. Additionally, two LEMSAs identified the documentation of patient's blood glucose in a section other than eVitals.18 (Blood Glucose Level), such as eProcedures.03 (Procedures). The application of these data elements will be further evaluated for the 2020 reporting calendar year.

Select this link to view the measure specifications for STR-2

STR-4 CHART: ADVANCED HOSPITAL NOTIFICATION FOR STROKE PATIENTS



STR-4 TABLE: ADVANCED HOSPITAL NOTIFICATION FOR STROKE PATIENTS

Percentage of stroke patients transported by primary care provider originating from a 911 response that included an advance hospital notification or pre-arrival alert.

LEMSA	Denominator (Population)	Reported Value
Alameda County	2241	54%
Central California	2045	75%
El Dorado County	77	0%
Inland Counties	2577	56%
Kern County	1475	36%
Los Angeles County	4410	95%
Merced County	125	1%
Monterey County	169	100%
Mountain-Valley	673	52%
Napa County	104	74%
North Coast	135	54%
Northern California	64	28%
Riverside County	1903	65%
Sacramento County	1708	90%
San Benito County		89%
San Francisco	994	100%
San Joaquin County	669	78%
San Mateo County	1237	49%
Santa Clara County	2314	47%
Santa Cruz County	358	9%
Sierra-Sacramento Valley	1413	85%
Solano County	684	100%
Ventura County	678	97%
Yolo County	299	83%

Not Reporting: Coastal Valleys, Contra Costa County, Imperial County, Marin County, Orange County, San Diego County, San Luis Obispo County, Santa Barbara County, Tuolumne County

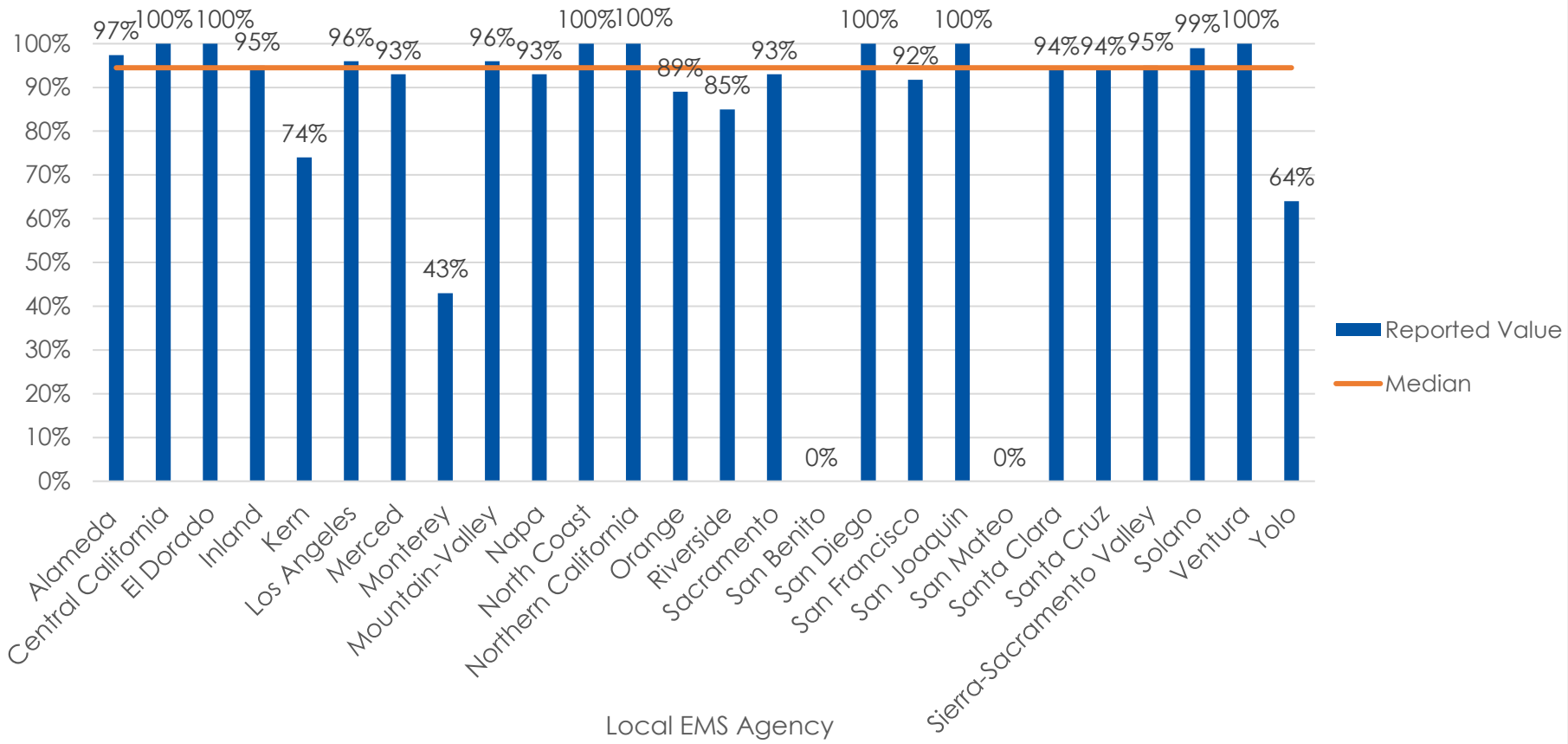
Response Count	24
Submission Rate (n=33)	73%
Denominator Total	26352
Mean	63%
Median	70%

Of the 24 responding LEMSAs reporting STR-4 data for 2019, the mean (average) of the data set was 63% while the median value was 70%.

Several LEMSAs noted issues with the collection or mapping of data element/value eDisposition.24 (Destination Team Pre-Arrival Alert or Activation).Two of the LEMSAs experienced issues building their report with the use of eVitals.29 (Stroke Scale Score), and at least two LEMSAs required the use of local supplemental questions in order to provide values for this measure. Data entry errors by field providers was also reported as a contributing factor for the values by more than one LEMSA. These issues will be further evaluated for the 2020 reporting calendar year.

Select this link to view the measure specifications for STR-4

PED-3 CHART: RESPIRATORY ASSESSMENT FOR PEDIATRIC PATIENTS



PED-3 TABLE: RESPIRATORY ASSESSMENT FOR PEDIATRIC PATIENTS

Percentage of pediatric patients that had a primary or secondary impression of respiratory distress and received a documented respiratory assessment originating from a 911 response.

LEMSA	Denominator (Population)	Reported Value
Alameda County	427	97%
Central California	549	100%
El Dorado County	20	100%
Inland Counties	1513	95%
Kern County	723	74%
Los Angeles County	1774	96%
Merced County	59	93%
Monterey County	155	43%
Mountain-Valley	214	96%
Napa County	40	93%
North Coast	42	100%
Northern California	7	100%
Orange County	504	89%
Riverside County	1413	85%
Sacramento County	437	93%
San Benito County		0%
San Diego County	26	100%
San Francisco	182	92%
San Joaquin County	151	100%
San Mateo County	293	0%
Santa Clara County	309	94%
Santa Cruz County	87	94%
Sierra-Sacramento Valley	448	95%
Solano County	99	99%
Ventura County	73	100%
Yolo County	80	64%

Not Reporting: Coastal Valleys, Contra Costa County, Imperial County, Marin County, San Luis Obispo County, Santa Barbara County, Tuolumne County

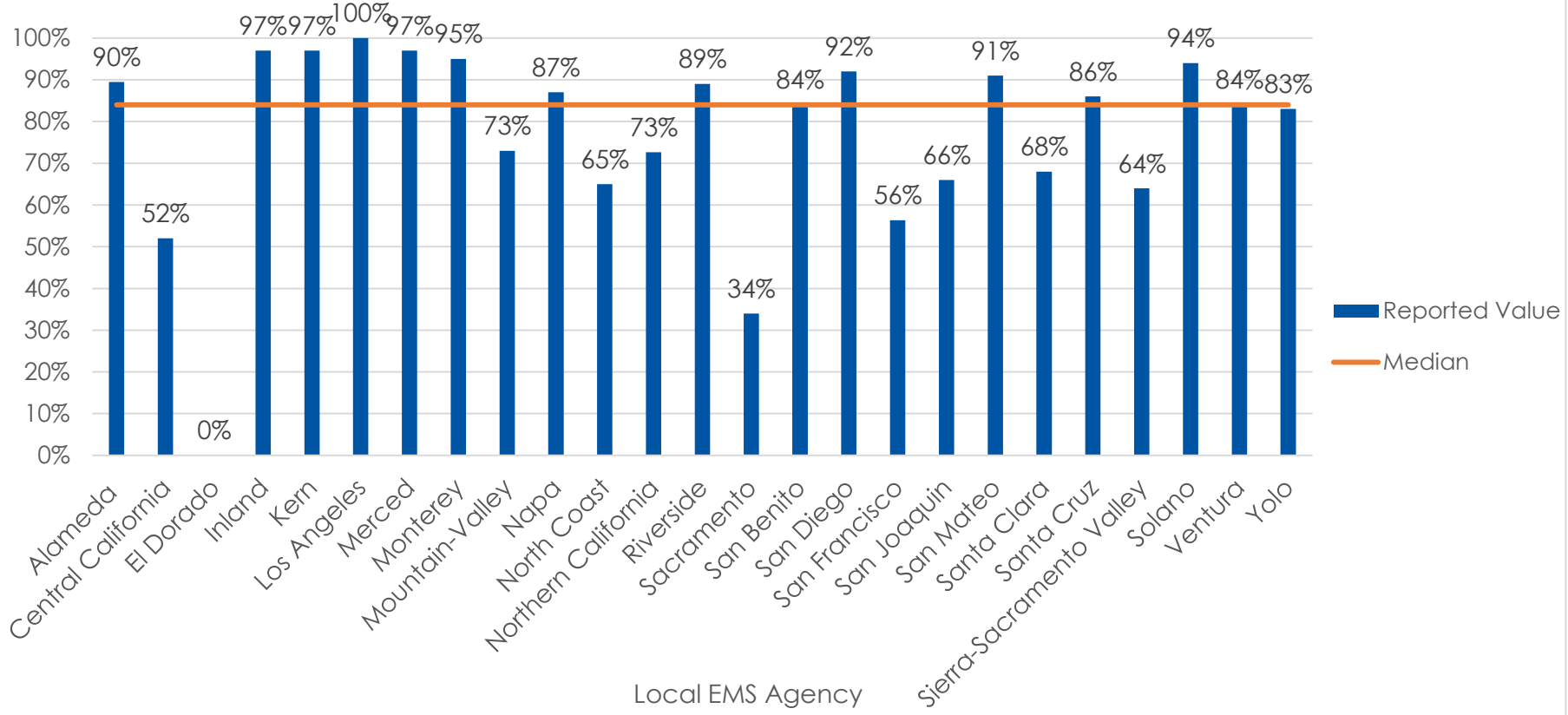
Response Count	26
Submission Rate (n=33)	79%
Denominator Total	9625
Mean	84%
Median	95%

Of the 26 responding LEMSAs reporting PED-3 data for 2019, the mean (average) of the data set was 84% while the median value was 95%.

Some LEMSAs noted issues with the collection or mapping of data elements/values in the inclusion criteria. Application of the data elements will be further evaluated for the 2020 reporting calendar year.

Select this link to view the measure specifications for PED-3

RST-4 CHART: 911 REQUESTS FOR SERVICES THAT INCLUDED A LIGHTS AND/OR SIRENS RESPONSE



RST-4 TABLE: 911 REQUESTS FOR SERVICES THAT INCLUDED A LIGHTS AND/OR SIRENS RESPONSE

Percentage of EMS responses originating from a 911 request that included the use of lights and/or sirens during a response.

LEMSA	Denominator (Population)	Reported Value
Alameda County	172199	90%
Central California	235233	52%
El Dorado County	17216	0%
Inland Counties	467303	97%
Kern County	157692	97%
Los Angeles County	694696	100%
Merced County	26230	97%
Monterey County	34835	95%
Mountain-Valley	65443	73%
Napa County	20198	87%
North Coast	23897	65%
Northern California	8058	73%
Riverside County	378757	89%
Sacramento County	189049	34%
San Benito County		84%
San Diego County	24090	92%
San Francisco	106571	56%
San Joaquin County	82484	66%
San Mateo County	110125	91%
Santa Clara County	121196	68%
Santa Cruz County	39929	86%
Sierra-Sacramento Valley	147359	64%
Solano County	38654	94%
Ventura County	66642	84%
Yolo County	20934	83%

Not Reporting: Coastal Valleys, Contra Costa County, Imperial County, Orange County, Marin County, San Luis Obispo County, Santa Barbara County, Tuolumne County

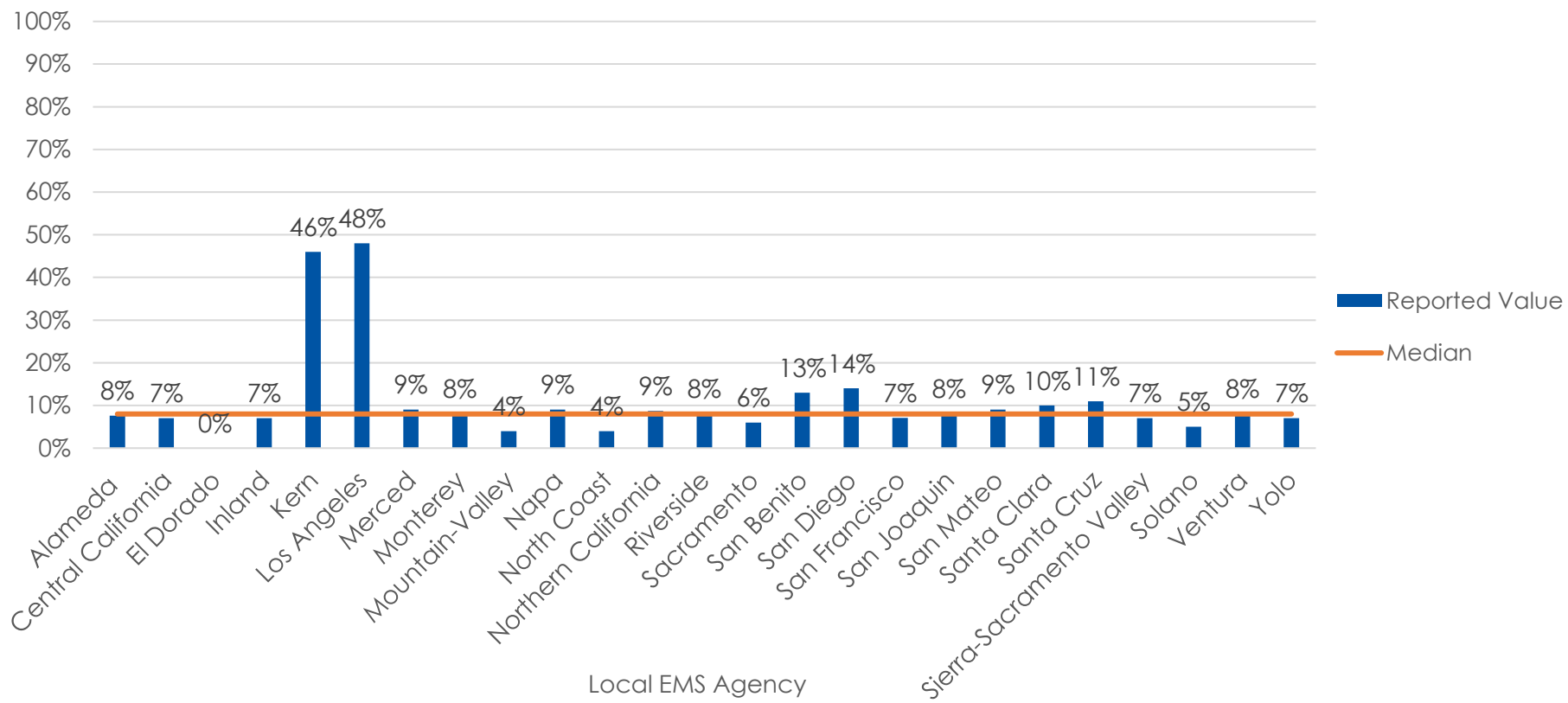
Response Count	25
Submission Rate (n=33)	76%
Denominator Total	3248790
Mean	77%
Median	84%

Of the 25 responding LEMSAs reporting RST-4 data for 2019, the mean (average) of the data set was 77% while the median value was 84%.

Two LEMSAs reported issues with the collection of data elements/values not being collected. Both are planning to correct this by using the data element(s) in the future.

Select this link to view the measure specifications for RST-4

RST-5 CHART: 911 REQUESTS FOR SERVICES THAT INCLUDED A LIGHTS AND/OR SIRENS TRANSPORT



RST-5 TABLE: 911 REQUESTS FOR SERVICES THAT INCLUDED A LIGHTS AND/OR SIRENS TRANSPORT

Percentage of EMS transports originating from a 911 request that included the use of lights and/or sirens during patient transport.

LEMSA	Denominator (Population)	Reported Value
Alameda County	108881	8%
Central California	162109	7%
El Dorado County	11776	0%
Inland Counties	165105	7%
Kern County	87434	46%
Los Angeles County	483150	48%
Merced County	20764	9%
Monterey County	34835	8%
Mountain-Valley	49763	4%
Napa County	9866	9%
North Coast	21155	4%
Northern California	5113	9%
Riverside County	159315	8%
Sacramento County	126860	6%
San Benito County		13%
San Diego County	24090	14%
San Francisco	82861	7%
San Joaquin County	65560	8%
San Mateo County	39805	9%
Santa Clara County	86530	10%
Santa Cruz County	14625	11%
Sierra-Sacramento Valley	104762	7%
Solano County	38654	5%
Ventura County	45368	8%
Yolo County	14297	7%

Not Reporting: Coastal Valleys, Contra Costa County, Imperial County, Marin County, Orange County, San Luis Obispo County, Santa Barbara County, Tuolumne County

Response Count	25
Submission Rate (n=33)	76%
Denominator Total	1962678
Mean	11%
Median	8%

Of the 25 responding LEMSAs reporting RST-5 data for 2019, the mean (average) of the data set was 11% while the median value was 8%.

Two LEMSAs reported issues with the collection of data elements/values not being collected. Both are planning to correct this by using the data element(s) in the future.

Select this link to view the measure specifications for RST-5

APPENDIX: RESPONSES FROM LEMSAs FOR THE 2019 CORE QUALITY MEASURES REPORT

The following tables include the information provided by each LEMSA for the 2019 Core Quality Measures Report. All notes and feedback provided by the LEMSAs will be considered by EMSA for the 2020 reporting calendar year.

ALAMEDA COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	1,217	97%	
ACS-1	2,146	86%	Data entry errors by field providers contributes to these values.
ACS-4	278	89%	Data entry errors by field providers contributes to these values.
HYP-1	1,430	73%	Data entry errors by field providers contributes to these values.
STR-1	2,379	91%	Data entry errors by field providers contributes to these values.
STR-2	2,376	94%	Data entry errors by field providers contributes to these values.
STR-4	2,241	54%	Data entry errors by field providers contributes to these values.
PED-3	427	97%	
RST-4	172,199	89%	Data entry errors by field providers contributes to these values. Field providers have been instructed to select "Emergent" for billing purposes, thus the reported percentage value is artificially high.
RST-5	108,881	8%	

Additional Comments: *With the 2019 migration from Zoll to the ESO platform, Alameda County's 911 EMS data reporting is approximately a 50/50 combination of Zoll and ESO data.

CENTRAL CALIFORNIA EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	1,703	76%	Transport of Trauma patients to a trauma center. N=1,297 / 1,703 76%
ACS-1	5,961	73%	Aspirin administration for STEMI or suspected cardiac chest pain. Age 35 and above. N=4,336 / D= 5,961 73%
ACS-4	439	95%	Advanced Hospital notification for STEMI patients. N=417 / 439 95%
HYP-1	2,113	91%	Treatment administered for hypoglycemia. N=1,925 / 2,113=D 91%
STR-1	2,045	100%	Prehospital screening for suspected stroke patients. N=2,045 / 2,045=D 100%
STR-2	2,045	85%	Glucose testing for suspected stroke patients. N=1,737 / 2,045=D 85%
STR-4	2,045	75%	Advanced Hospital notification for stroke patients. N=1,542 / 2,045=D 75%
PED-3	549	100%	Respiratory Assessment for Pediatric patients. N=549 / 549=D 100%
RST-4	235,233	52%	911 Requests for Services that include a Light and /or Siren response. N=123,137 / 235,233=D 52%
RST-5	162,109	7%	911 Requests for Services that include a Lights and/or Sirens Transports. N=11,260 / 162,109=D 7%

EL DORADO COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	20,470	0%	
ACS-1	600	0%	
ACS-4	24	0%	
HYP-1	221	87%	
STR-1	376	31%	
STR-2	376	89%	
STR-4	77	0%	
PED-3	20	100%	
RST-4	17,216	0%	
RST-5	11,776	0%	

Additional Comments: Adrienne Kim: Per Mark Roberts, "Attached are the Core Measures for El Dorado County LEMSA. Several of the measures are 0% as a result of the element/value not being collected. This is being worked on and will be corrected moving forward".

INLAND COUNTIES EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	5,193	48%	
ACS-1	12,245	38%	
ACS-4	784	29%	
HYP-1	3,814	65%	
STR-1	4,295	100%	
STR-2	4,295	69%	
STR-4	2,577	56%	
PED-3	1,513	95%	
RST-4	467,303	97%	
RST-5	165,105	7%	

KERN COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	1,192	93%	
ACS-1	1,979	52%	
ACS-4	235	47%	
HYP-1	2,530	64%	
STR-1	1,475	91%	
STR-2	1,475	90%	
STR-4	1,475	36%	
PED-3	723	74%	
RST-4	157,692	97%	
RST-5	87,434	46%	

LOS ANGELES COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	6,930	85%	
ACS-1	6,700	81%	Added ASA Allergy=N to denominator to have denominator reflect the total # of patients that could have cardiac chest pain that are eligible to receive ASA.
ACS-4	5,805	94%	
HYP-1	7,399	80%	
STR-1	8,436	98%	
STR-2	2,612	98%	
STR-4	4,410	95%	
PED-3	1,774	96%	
RST-4	694,696	100%	
RST-5	483,150	48%	

Additional Comments: Data only includes 9 months of LAFD data.

MERCED COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	2,469	0%	What percentage of trauma patients meeting CDC Step 1 or 2 or 3 criteria were transported to a trauma center originating from a 911 response?
ACS-1	1,021	60%	What percentage of patients aged 35 and above with STEMI or suspected cardiac chest pain received aspirin originating from a 911 response?
ACS-4	32	0%	What percentage of STEMI patients transported by primary care provider originating from a 911 response included an advanced hospital notification or pre-arrival alert to a STEMI receiving center?
HYP-1	16	63%	What percentage of patients received treatment to correct their hypoglycemia originating from a 911 response?
STR-1	337	54%	What percentage of suspected stroke patients received a prehospital stroke screening originating from a 911 response?
STR-2	606	7%	What percentage of suspected stroke patients had an assessment of blood glucose level originating from a 911 response?
STR-4	125	1%	What percentage of stroke patients transported by primary care provider originating from a 911 response included an advanced hospital notification or pre-arrival alert?
PED-3	59	93%	What percentage of pediatric patients who had a primary or secondary impression of respiratory distress received a documented respiratory assessment originating from a 911 response?
RST-4	26,230	97%	What percentage of EMS responses originating from a 911 request included the use of lights and/or sirens during a response?
RST-5	20,764	9%	What percentage of EMS transports originating from a 911 request included the use of lights and/or sirens during patient transport?

MONTEREY COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	585	91%	
ACS-1	2,257	20%	Does not include patients who took ASA on their own or were directed to do so by dispatch.
ACS-4	173	100%	All providers are required to notify the receiving hospital on all 9-1-1 calls.
HYP-1	386	91%	
STR-1	169	99%	Number taken from manually kept data. Includes first responder and transport provider data.
STR-2	169	98%	Number taken from manually kept data. Includes first responder and transport provider data.
`	169	100%	All providers are required to notify the receiving hospital on all 9-1-1 calls.
PED-3	155	43%	
RST-4	34,835	95%	
RST-5	34,835	8%	

MOUNTAIN-VALLEY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	285	41%	What percentage of trauma patients meeting CDC Step 1 or 2 or 3 criteria were transported to a trauma center originating from a 911 response?
ACS-1	4,644	34%	What percentage of patients aged 35 and above with STEMI or suspected cardiac chest pain received aspirin originating from a 911 response?
ACS-4	173	78%	What percentage of STEMI patients transported by primary care provider originating from a 911 response included an advanced hospital notification or pre-arrival alert to a STEMI receiving center?
HYP-1	816	39%	What percentage of patients received treatment to correct their hypoglycemia originating from a 911 response?
STR-1	925	76%	What percentage of suspected stroke patients received a prehospital stroke screening originating from a 911 response?
STR-2	925	94%	What percentage of suspected stroke patients had an assessment of blood glucose level originating from a 911 response?
STR-4	673	52%	What percentage of stroke patients transported by primary care provider originating from a 911 response included an advanced hospital notification or pre-arrival alert?
PED-3	214	96%	What percentage of pediatric patients who had a primary or secondary impression of respiratory distress received a documented respiratory assessment originating from a 911 response?
RST-4	65,443	73%	What percentage of EMS responses originating from a 911 request included the use of lights and/or sirens during a response?
RST-5	49,763	4%	What percentage of EMS transports originating from a 911 request included the use of lights and/or sirens during patient transport?

NAPA COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	234	74%	
ACS-1	477	53%	The numerator exclusion criteria should also be included in the denominator exclusion criteria, furthermore "Not Value 7701003 Not Recorded" should be removed because this is what we're trying to capture.
ACS-4	55	73%	
HYP-1	243	84%	
STR-1	476	50%	
STR-2	476	68%	The numerator exclusion criteria should also be included in the denominator exclusion criteria, furthermore "Not Value 7701003 Not Recorded" should be removed because this is what we're trying to capture.
STR-4	104	74%	
PED-3	40	93%	
RST-4	20,198	87%	
RST-5	9,866	9%	

NORTH COAST EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	241	40%	
ACS-1	866	52%	
ACS-4	34	21%	
HYP-1	171	77%	
STR-1	230	69%	
STR-2	334	47%	
STR-4	135	54%	
PED-3	42	100%	
RST-4	23,897	65%	
RST-5	21,155	4%	

NORTHERN CALIFORNIA EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	156	38%	Count by patients treated rather than by number of responses.
ACS-1	219	63%	Count by patients treated rather than by number of responses.
ACS-4	18	0%	Count by patients treated rather than by number of responses.
HYP-1	60	68%	Count by patients treated rather than by number of responses.
STR-1	153	80%	Count by patients treated rather than by number of responses.
STR-2	153	25%	Count by patients treated rather than by number of responses.
STR-4	64	28%	Count by patients treated rather than by number of responses.
PED-3	7	100%	Count by patients treated rather than by number of responses.
RST-4	8,058	73%	
RST-5	5,113	9%	Count by patients treated rather than by number of responses.

ORANGE COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2			OCEMS did not use eDisposition.23 during CY 2019 in our countywide data system, OC-MEDS; therefore, Orange County is unable to report on this measure at this time. We are planning to use eDisposition.23 in future reporting years.
ACS-1			Orange County is unable to report on this measure because the treatment of Pertinent Negative contraindications is not consistent with our treatment protocols and policies. Over 40% of our applicable patient population had a documented contraindication. There is also a problem with how eMedications.02 has been operationalized in the inclusion criteria.
ACS-4			OC-MEDS did not use eDisposition.23/24 during CY 2019, therefore Orange County is unable to report on this measure at this time. We are planning to use eDisposition.23/24 in future reporting years.
HYP-1	3,217	67%	No comment.
STR-1			Orange County is unable to report on this measure due to a technical malfunction with eVitals.29.
STR-2	2,804	90%	Orange County is concerned that 100% may not be an attainable or appropriate goal for this measure as Pertinent Negatives are being inappropriately excluded from the numerator.
STR-4			OC-MEDS did not use eDisposition.24 during CY 2019, therefore Orange County is unable to report on this measure at this time. We are planning to use eDisposition.24 in future reporting years.
PED-3	504	89%	Orange County is concerned that 100% may not be an attainable or appropriate goal for this measure as Pertinent Negatives are being inappropriately excluded from the numerator. We are also concerned the process for cleaning the data to operationalize the "Count by patients treated rather than number of responses." directive needs to be specified and discussed to ensure appropriate treatment of various EMS deployment models.
RST-4			OC-MEDS did not use eResponse.24 during CY 2019, therefore Orange County is unable to report on this measure at this time. We are planning to use eResponse.24 in future reporting years.
RST-5			OC-MEDS did not use eDisposition.18 during CY 2019, therefore Orange County is unable to report on this measure at this time. We are planning to use eDisposition.18 in future reporting years.

RIVERSIDE COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	2,346	66%	Numerator: 1,541 Denominator: 2,346 NOTE: 1% of transported identified as "Dead on Scene". This might need to be an exclusionary criteria going forward in Patient/Incident Disposition (eDisposition.12).
ACS-1	12,247	42%	Numerator: 5,172 Denominator: 12,247 Last year's denominator/numerator was approx. half. This year's criteria has Provider Impressions (eSituation .11 and .12) as 120.9 and 121.3. Last year only had 120.9. NOTE: new criteria excluding 35 and under removes from the numerator= 1171 and denominator= 5464 cases.
ACS-4	702	4%	Numerator: 28 Denominator: 702 Last year denominator was 276. This year's criteria changes both numerator and denominator. Criteria brings in additional data points (incl. additional impressions). The lower %s this year may be because eDispostion.24 is no longer a requirement for REMSA. However, REMSA has an internal method for this measure which looks at incident receiving hospital date/time. That is the most common field used for hospital notification. With this method, advanced contact documentation is at approximately 75%.
HYP-1	3,207	82%	Numerator: 2,635 Denominator: 3,207 No changes noted.
STR-1	4,885	87%	Numerator: 4,248 Denominator: 4,885 NOTE: Criteria has not changed significantly but REMSA denominator is approx. 4x higher this year. Possibly due to changes in the ePCR stroke screen structure/location and how provider impressions are utilized.
STR-2	4,885	90%	Numerator: 4,373 Denominator: 4,885 NOTE: Same note as for STR-1 above. Criteria has not changed significantly but REMSA denominator is approx. 4x higher this year possibly due to changes in the ePCR stroke screen structure/location and how provider impressions are utilized.
STR-4	1,903	65%	Numerator: 1,235 Denominator: 1,903 Measure mostly unchanged from 2018. Pre-notification is per policy.
PED-3	1,413	85%	Numerator: 1,200 Denominator: 1,413 NOTE: Count is approximately 10-fold higher than 2018. In 2018 REMSA had multiple impressions (eSituation .11 and .12) that did not match the state list in the 2018 ePCR data. This was corrected at the end of 2018 pulling in significantly more matched cases for 2019. De-duplication method for this measure was manual using fields including name, age, gender, incident location, date, time.
RST-4	378,757	89%	Numerator: 335,693 Denominator: 378,757 NOTE: Count in 2018 was approximately 150,000 lower due to exclusion of canceled calls. Measure criteria does not say to exclude this so canceled calls were calculated in the data this year. This significantly changed the base denominator and numerator but % calculation for 2018 and 2019 are similar (91% in 2018).
RST-5	159,315	8%	Numerator: 13,382 Denominator: 159,315 No changes noted.

Additional Comments: **Measures 1-7 obtained patient level data using Soundex module function in Access using codes against full name, incident date, incident hour (etimes.03), and age (age new this year). All 4 criteria must be met before de-duplication. Data criteria based on state definition is met before applying the Soundex criteria.

SACRAMENTO COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	2,931	13%	If the trauma hospital name is looked at instead of hospital capability the percentage increases to 83%. Hospital Capability (e.Disposition.23) – EMSA requires this for TRA-2 (If trauma patients meeting step 1, 2, or 3 TTC were taken to a trauma center), and ACS-4 (If advanced hospital notification was provided for STEMI Patients). This field is not routinely documented by SCEMSA medics, it would be inefficient to require it on all transports, and requiring it only for trauma and STEMI patients is not operationally intuitive and would result in incomplete data and poor documentation compliance. Knowing our Trauma and STEMI centers, we derive much more accurate data for these core measures by filtering the SCEMSA report for those Trauma and STEMI hospitals, rather than using a poorly documented data element to identify these hospitals.
ACS-1	6,404	78%	
ACS-4	710	37%	If the PCI center hospital name instead of hospital capability the percentage increases to 85%.
HYP-1	2,214	71%	
STR-1	3,042	91%	
STR-2	3,042	7%	If eProcedures.03 is looked at instead of eVitals.18 the percentage increases to 55%. Blood Glucose Level (e.Vitals.18) – EMSA requires this for STR-2 (Glucose testing for suspected stroke patients). This is problematic because most healthcare personnel I know consider blood glucose determination and not a vital sign. SCEMSA medics have been documenting this under eProcedure.03 for some time, and it makes little sense to undertake the re-training of >900 medics with likely incomplete compliance just for the generation of a report.
STR-4	1,708	90%	
PED-3	437	93%	
RST-4	189,049	34%	
RST-5	126,860	6%	

SAN BENITO COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2		0%	
ACS-1		62%	
ACS-4		0%	
HYP-1		90%	
STR-1		80%	
STR-2		98%	
STR-4		89%	
PED-3		0%	
RST-4		84%	
RST-5		13%	

Additional Comments: To better align with the requests for CA Core Measures we have created a clinical data warehouse utilizing NEMSIS fields to populate the metrics. We have followed the filtering criteria as set forth in the 2019 CA Core Measures template. This has resulted in some errors that we are working to remedy. For transparency, you will find the following issues with the reports:

• Previously we utilized General Hospital as eDisposition.23 (Hospital Capability). The result is that for TRA-2 and ACS-4 you will notice that our patients seemingly do not go to the appropriate facilities. The cause is a data collection field that we are working to resolve for the 2020 data.

• The second is the PEDS-3 field that does not populate due to the specific ICD 10 code that the Core Measures requests. We would request to change this to include more than just the one ICD 10 code and will work to resolve that as soon as possible.

We continue to move toward the generation of reports that are transparent and allow us to view the data frequently. This will allow us to catch these issues in the future and work toward more immediate remedy. Thank you for your patience as we become more efficient and work towards better patient care and improved outcomes. AMR

SAN DIEGO COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	1,003	91%	Due to COVID-19, resources are not available to analyze data from EMS agencies not directly entering into the County's prehospital care records system
ACS-1	1,651	68%	
ACS-4			eDisposition.24 not used. San Diego County uses a Base Hospital System with radio contact to alert hospital of incoming specialty care patients.
HYP-1	232	74%	
STR-1	712	74%	
STR-2	712	89%	
STR-4			eDisposition.24 not used. San Diego County uses a Base Hospital System with radio contact to alert hospital of incoming specialty care patients.
PED-3	26	100%	
RST-4	24,090	92%	
RST-5	24,090	14%	

SAN FRANCISCO EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	3,239	49%	
ACS-1	2,450	63%	
ACS-4	322	91%	Indication that an alert (or activation) was called by EMS to the appropriate destination healthcare facility team. The alert (or activation) should occur prior to the EMS Unit arrival at the destination with the patient.
HYP-1	1,393	66%	
STR-1	1,295	93%	
STR-2	1,295	95%	
STR-4	994	99%	
PED-3	182	92%	
RST-4	106,571	56%	
RST-5	82,861	7%	

SAN JOAQUIN COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	135	93%	The denominator is too low and does not reflect the volume of Major Trauma patients because the inclusion criteria was limited to either eInjury.03 or eInjury.04 and does not capture major trauma patients consistent with SJCEMSA policies. There were 1812 patients transported to trauma centers based on SJCEMSA policies. The denominator shown is calculated by using the criteria exactly as written.
ACS-1	2,742	68%	The data elements for the numerator include eMedication Given (.03) or eMedication Administered (.02) and this combination appears to cause a problem with accurate counts. A review of a few individual ePCRs also showed that some IFTs were incorrectly coded as scene calls which increased the numerator, but did not have aspirin given (denominator).
ACS-4	297	78%	
HYP-1	896	28%	
STR-1	1,481	82%	
STR-2	1,481	96%	
STR-4	669	78%	The inclusion of the eVitals.29 criterion (stroke scale score) in both the numerator and the denominator had the unfortunate effect of decreasing the number of cases that were found to be suspected stroke patients in the field (see STR-1 and STR-2 for the difference. As a result, STR-4 ended up measuring the number of cases in which PCRs included a stroke scale score rather than measuring the percentage of patients that included a pre-arrival alert. Numerator is 1332 and denominator is 1481 = 89.9%
PED-3	151	100%	The criteria eSituation J80 (Acute Bronchospasm) is not an option for 2019 data in MEDs. The data presented here is based upon the inclusion of the criteria Acute Bronchospasm in the primary and secondary impression.
RST-4	82,484	66%	
RST-5	65,560	8%	

SAN MATEO COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	18,304	0%*	*Unable to determine numerator value, thus unable to report. For CY 2019, there is was a mapping issue for the numerator value; e-disposition 23 was not a field available in MEDS for 2019. All selections were mapped to general hospitals, thus unable to determine trauma center transports. A correction is in process to identify trauma center transports for CY 2020. In transparency, a denominator value has been reported. Due to the manner in which hospital destination data was recorded in MEDS for calendar year ("CY") 2019, all transports were mapped to a "general hospitals" code, making it challenging to accurately report a numerical value as defined by the TRA-2 spec without unprescribed data manipulation that deviates from the measure's pure definition. a. Proposed resolution for CY 2020: MEDS is working to differentiate trauma center transports from general hospital transports within the data set. This correction is currently in progress.
ACS-1	2,075	50%	
ACS-4	351	50%	
HYP-1	1,086	72%	
STR-1	1,926	78%	
STR-2	1,926	82%	
STR-4	1,237	49%	
PED-3	293	0%*	*Unable to determine numerator value, thus unable to report. The use of a singular ICD-10 code for the numerator value did not return any values using current NEMSIS v3.4 mapping. A correction is process to more accurately map respiratory distress primary/secondary impressions to ICD-10 codes for CY 2020. In transparency, a denominator value has been reported. Due to the use of a singular ICD-10 code within the spec, there were no reporting of a numerical value. The LEMSA completed a standardization of primary/secondary impressions as prescribed by the State during CY 2019. This standardization resulted in changes to NEMSIS mapping that was not completed until early 2020. Retrospective mapping for CY2019 was not completed. a. Proposed resolution for CY 2020: MEDS is working to complete a detailed NEMSIS v3.4 mapping of primary/secondary imp.
RST-4	110,125	91%	
RST-5	39,805	9%	

SANTA CLARA COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	2,255	97%	Nothing maps to eDisposition.23, so the criteria was changed to eDisposition.01 is equal to Stanford, Regional, or Valley Medical Centers (trauma centers). Both the numerator and denominator do not include Palo Alto Fire because their ePCRs do not contain eInjury.03 or eInjury.04 data.
ACS-1	3,044	66%	Per report composition values appear to be accurate bases upon report structure, however report structure does not account for providers populating multiple secondary impressions resulting in an inflated denominator value. An example is the addition of "Chest pain- suspected cardiac" as a secondary impression to a primary impressions of narrow and wide complex tachycardia patients where aspirin is not indicated.
ACS-4	475	33%	No notes.
HYP-1	701	76%	No notes.
STR-1	2,314	72%	Report could not be built using eVitals.29. Santa Clara uses GFAST for stroke screening. There is no CEMSIS value for GFAST so supplemental questions were built to record screening in the PCR. SQs used to build this report otherwise the report would had a NULL value.
STR-2	2,314	83%	The numerator is lower than expected due to the fact some providers documented the patient's blood glucose in a section other than eVitals.18. This resulted in a lower reporting value than expected.
STR-4	2,314	47%	Report could not be built using eVitals.29. Santa Clara uses GFAST for stroke screening. There is no CEMSIS value for GFAST so supplemental questions were built to record screening in the PCR. SQs used to build this report otherwise the report would had a NULL value.
PED-3	309	94%	No notes.
RST-4	121,196	68%	*in the eResponse.03 category, approximately 29000 entries were blank. These entries were excluded from the final count
RST-5	86,530	10%	No notes.

SANTA CRUZ COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	559	18%	
ACS-1	1,182	96%	
ACS-4	249	5%	
HYP-1	155	33%	
STR-1	774	96%	
STR-2	774	91%	
STR-4	358	9%	
PED-3	87	94%	
RST-4	39,929	86%	
RST-5	14,625	11%	

SIERRA-SACRAMENTO VALLEY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	1,973	92%	Field personnel were not consistently documenting/utilizing eDisposition.23 appropriately, resulting in inaccurate data. Added eDisposition.01 (Destination Transferred To/Name) to include designated trauma centers to obtain/report accurate data. Education is being provided to field personnel during the 2020 calendar year to improve data consistency/validity.
ACS-1	5,590	79%	
ACS-4	499	99%	Field personnel were not consistently documenting/utilizing eDisposition.24 appropriately, resulting in inaccurate data. Utilized data from our STEMI patient data registry (based on 100% audit of STEMI patient calls) to obtain/report accurate data. Education is being provided to field personnel during the 2020 calendar year to improve data consistency/validity.
HYP-1	1,562	90%	Data ran/compiled as requested (without modification)
STR-1	2,896	82%	Data ran/compiled as requested (without modification)
STR-2	2,896	84%	Data ran/compiled as requested (without modification)
STR-4	1,413	85%	Field personnel were not consistently documenting/utilizing eDisposition.24 appropriately, resulting in inaccurate data. Data ran/compiled as requested (without modification), but does not accurately reflect current practice (based on regular/ongoing Stroke patient audits). Education is being provided to field personnel during the 2020 calendar year to improve data consistency/validity.
PED-3	448	95%	Data ran/compiled as requested (without modification)
RST-4	147,359	64%	Data ran/compiled as requested (without modification)
RST-5	104,762	7%	Data ran/compiled as requested (without modification)

SOLANO COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	727	96%	
ACS-1	1,304	84%	
ACS-4	168	96%	
HYP-1	319	98%	
STR-1	684	97%	
STR-2	684	96%	
STR-4	684	100%	No stroke centers in Solano County. All receiving hospitals were advised of incoming patients.
PED-3	99	99%	
RST-4	38,654	94%	
RST-5	38,654	5%	

VENTURA COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	1,109	91%	
ACS-1	2,396	59%	
ACS-4	318	89%	Required use of local supplemental questions. Unable to run measure using state guidance. We will be addressing the gaps in data collection to better align with CEMSIS requirements and core measures.
HYP-1	1,102	64%	
STR-1	1,000	79%	Required use of local supplemental questions. Unable to run measure using state guidance. We will be addressing the gaps in data collection to better align with CEMSIS requirements and core measures.
STR-2	1,000	89%	
STR-4	678	97%	Required use of local supplemental questions. Unable to run measure using state guidance. We will be addressing the gaps in data collection to better align with CEMSIS requirements and core measures.
PED-3	73	100%	
RST-4	66,642	84%	
RST-5	45,368	8%	

YOLO COUNTY EMS AGENCY

Measure ID	Denominator (Population)	Reported Value	Notes
TRA-2	552	72%	
ACS-1	508	93%	
ACS-4	83	47%	
HYP-1	171	89%	
STR-1	446	87%	
STR-2	436	99%	
STR-4	299	83%	
PED-3	80	64%	
RST-4	20,934	83%	
RST-5	14,297	7%	

QUESTIONS OR COMMENTS?

Additional information about the California Core Quality Measures Project, including reports for previous years, can be accessed via the California Emergency Medical Services Authority Quality Improvement webpage at https://emsa.ca.gov/quality-improvement/.

For questions or comments about the California Core Quality Measures Report – CY 2019, please contact Michelle McEuen at (916) 384-1925 or Michelle.McEuen@emsa.ca.gov.

California EMS System
Core Quality Measures Report

Gavin Newsom
Governor
State of California

Mark Ghaly, MD, MPH
Secretary
Health and Human Services Agency

Dave Duncan, MD Director
Emergency Medical Services Authority

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